

AMENDMENT TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for protecting a character entered at a graphical interface, said method comprising the steps of:
generating a set of partial images that form a complete image of a keypad having a button-to-character assignment;
displaying the partial images in said set cyclically to form a graphical keypad having the complete image using said image set; and and,
obtaining the character of a selected button selected by a user on said graphical keypad using said button-to-character assignment.
2. (Currently Amended) The method of claim 1, further comprising: the step of repeating said generating, said displaying, and said obtaining steps in claim 1 to obtain another character from the user a sequence of characters.
3. (Canceled)
4. (Currently Amended) The [[A]] method of claim 1, wherein said set of partial images is generated for generating a set of images from a complete image of a character belonging to a character set, wherein said generating comprises: said method comprising the step of distributing the illuminated pixels in said complete image among two or more partial images based upon pixel group.
5. (Currently Amended) The method of claim 1 claim 4, wherein a partial an image in the generated image set contains complete, partial or no information of said complete original image.
6. (Currently Amended) The method of claim 4, wherein said generating further comprises: comprising the step of

changing said distribution based upon time.

7. (Currently Amended) The method of claim 4, wherein said generating further comprises comprising the steps of:

computing the visible probabilities for all possibly illuminated pixels in a complete image; and and,

partitioning said pixels into groups based upon visible probability.

8-9. (Canceled)

10. (Currently Amended) A computer system for protecting a character entered at a graphical interface, said system comprising:

means for generating a set of partial images that form a complete image of a keypad having a button-to-character assignment;

means for displaying the partial images in said set cyclically to from a graphical keypad having the complete image; and using said image set, and,

means for obtaining the character of a selected button selected by a user on said graphical keypad using said button-to-character assignment.

11. (Currently Amended) The computer system of claim 10, further comprising:

means for repeating operations of said means for generating, said means for displaying, and said means for obtaining steps in claim 10 to obtain another character from the user a sequence of characters.

12. (Currently Amended) A computer-readable storage medium having stored therein instructions for performing a method of protecting a character entered at a graphical interface, the method comprising the steps of:

generating a set of partial images that form a complete image of a keypad having a button-to-character assignment;

displaying the partial images in said set cyclically to form a graphical keypad having the complete image; and using said image set; and,

obtaining the character of a button selected by a user on the said graphical keypad button using said button-to-character assignment.

13. (Currently Amended) The computer-readable storage medium of claim 12, wherein said performed method further comprises: comprising the step of

repeating said generating, said displaying, and said obtaining steps in claim 12 to obtain another character from the user a sequence of characters.

14. (Currently Amended) The [[A]] computer system of claim 10, wherein said set of partial images is generated for generating a set of images from a complete image of a character belonging to a character set, wherein said means for generating further comprises: system comprising

means for distributing the illuminated pixels in said complete image among two or more partial images based upon pixel group.

15. (Currently Amended) The computer system of claim 14, wherein said means for generating further comprises comprising:

means for computing the visible probabilities for all possibly illuminated pixels in a complete image; and and,

means for partitioning said pixels into groups based upon visible probability.

16. (Currently Amended) The [[A]] computer-readable storage medium of claim 12, wherein said generating comprises: having stored therein instructions for performing a method of generating a set of images from a complete image of a character belonging to a character set, the method comprising the step of

distributing the illuminated pixels in said complete image among two or more partial images based upon pixel group.

17. (Currently Amended) The computer-readable storage medium of claim 16, wherein said generating further comprises performed method further comprising the steps of:

computing the visible probabilities for all possibly illuminated pixels in a complete image; and and,

partitioning said pixels into groups based upon visible probability.

18. (Currently Amended) A system for protecting a character entered at a graphical interface, said system comprising:

a network of computers;

means for generating a set of partial images that form a complete image of a keypad having a button-to-character assignment;

means for displaying the partial images in said set cyclically to form a graphical keypad having the complete image; and using said image set; and,

means for obtaining the character of a selected button selected by a user on said graphical keypad using said button-to-character assignment.

19. (Currently Amended) The system of claim 18, wherein said means for generating and said means for obtaining are provided by a computer in said network, and said means for displaying is provided by another computer in said network.

20. (Currently Amended) The system of claim 18, wherein said means for generating, said means for displaying, and said means for obtaining are provided by multiple computers in said network working together to perform the a method for protecting a character entered at a graphical interface, of claim 1 with each computer performing at least one of the following steps of: in the method of claim 1.

generating a set of partial images that form a complete image of a keypad having a button-to-character assignment;

displaying the partial images in said image set cyclically to form a graphical keypad having the complete image; and

obtaining the character of a button selected by a user on the said graphical keypad using said button-to-character assignment.

21. (Currently Amended) The system of claim 18, further comprising:

means for repeating operation of said means for generating, means for displaying, and means for obtaining steps in claim 18 to obtain another character from the user a sequence of characters.

22. (Currently Amended) A computer-readable storage medium having stored therein instructions for performing a method of protecting a character entered at a graphical interface, said the method comprising the steps of:

generating a set of partial images that form a complete image of a keypad having a button-to-character assignment;

sending said image set of partial images to a remote computer;

receiving a selected button selected by a user on a graphical keypad from said remote computer, the graphical keypad having the complete image formed from the set of the partial images; and and,

obtaining the character of said selected button using said button-to-character assignment.

23. (Currently Amended) The computer-readable storage medium of claim 22, wherein said performed method further comprises: comprising the step of
repeating said generating, said sending, said receiving, and said obtaining steps in
claim 22 to obtain another character from the user a sequence of characters.

24. (Currently Amended) A computer-readable storage medium having stored therein instructions for performing a method of protecting a character entered at a graphical interface, said the method comprising the steps of:

receiving a an-image set of partial images from a remote computer, the set of partial images forming a complete image of a keypad having a button-to-character assignment;

displaying the partial images in said set set cyclically to form a graphical keypad having the complete image; and using said image set; and,

sending a selected button selected by a user on said graphical keypad to said remote computer.

25. (Currently Amended) The computer-readable storage medium of claim 24, wherein said performed method further comprises: comprising the step of

repeating said receiving, said displaying, and said sending steps in claim 24 to obtain another character from the user a sequence of characters.

26. (New) The method of claim 1, wherein each character is composed of a plurality of segments, said generating comprising:

distributing the segments of each character into two or more partial images of the set.

27. (New) The computer system of claim 10, wherein a partial image in the generated image set contains complete, partial or no information of said complete image.

28. (New) The computer system of claim 10, wherein each character is composed of a plurality of segments, said means for generating comprising:

means for distributing the segments of each character into two or more partial images of the set.

29. (New) The computer system of claim 14, wherein said means for generating further comprises means for changing said distribution based upon time.

30. (New) The computer-readable storage medium of claim 12, wherein each character is composed of a plurality of segments, said generating comprising:

distributing the segments of each character into two or more partial images of the set.

31. (New) The system of claim 18, wherein said set of partial images is generated from a complete image of a character belonging to a character set, wherein said means for generating further comprises:

means for distributing illuminated pixels in said complete image among two or more partial images based upon pixel group.

32. (New) The system of claim 31, wherein said means for generating further comprises:
means for changing said distribution based upon time.

33. (New) The system of claim 31, wherein said means for generating further comprises:
means for computing the visible probabilities for all possibly illuminated pixels in a complete image; and

means for partitioning said pixels into groups based upon visible probability.

34. (New) The system of claim 18, wherein a partial image in the generated image set contains complete, partial or no information of said complete image.

35. (New) The system of claim 18, wherein each character is composed of a plurality of segments, said means for generating comprising:

means for distributing the segments of each character into two or more partial images of the set.

36. (New) The computer-readable storage medium of claim 22, wherein each character is composed of a plurality of segments, said generating comprising:

distributing the segments of each character into two or more partial images of the set.

37. (New) The computer-readable storage medium of claim 24, wherein each character is composed of a plurality of segments, and wherein the segments of each character are distributed into two or more partial images of the set.